

REMARKS

Applicants respectfully request reconsideration of the present U.S. patent application. Claims 1-7, 12, 17 and 18 stand rejected under 35 U.S.C. § 102. Claims 8-11 and 13-16 stand rejected under 35 U.S.C. § 103. Claims 1, 7 and 17 have been amended. No claims have been added or canceled. Therefore, claims 1-18 remain pending.

Claim Objections

Examiner objected to claim 2 because of an alleged informality in line 2, specifically the omission of the word “and.” Applicants respectfully point out that claim 2 is correct as written, and that the word “and” is not necessary in line 2 as Examiner suggests. Applicants therefore respectfully submit that no correction is required, and request that the Examiner withdraw the objection to claim 2.

Drawing Objections

Examiner objected to the drawings because Figs. 1-4 and 18-20 were not designated as prior art. Applicants have designated Figs. 1-4 and 18-20 as prior art, as instructed by the Examiner. In addition, Applicants have amended Fig. 5 to correct obvious errors. Specifically, as set forth on Page 12, lines 18-24, reference number “386” should be “586,” and instead of referring to the collector contact, should refer to an emitter contact around the perimeter of the base region. Furthermore, Applicants have amended Fig. 21 to remove extraneous information from the table set forth therein, and to correctly identify the “base contact periphery” column as “B_{cp}.” The revisions to Fig. 21 were made so that the table is consistent with the description thereof on Page 17, lines 14-17. No new matter has been

added to any amended figure. Applicants have placed the label "Replacement Sheet" in the headers of Figs. 1-5 and 18-21, in accordance with 37 C.F.R. 1.121(c).

Applicants have generated formal versions of all figures previously submitted. Accordingly, Applicants respectfully request that the Examiner replace the previously submitted informal drawings with the formal drawings enclosed herewith. Applicants believe that the enclosed drawings address the Examiner's objections and respectfully request that such drawings be approved.

Claim Rejections - 35 U.S.C. § 112

Claims 17 and 18 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Specifically, Examiner stated that claims 17 and 18 failed to recite a structure, and merely recited a property. Applicants have amended claim 17 so that it recites a structure, and claim 18 depends from claim 17. Thus, Applicants believe that the rejections under 35 U.S.C. § 112, second paragraph have been overcome and respectfully request that the Examiner withdraw said rejections.

Claim Rejections - 35 U.S.C. § 102

Rejections of Claims 1-7, 12, 17 and 18 based on *Chang*

Claims 1-7, 12, 17 and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,266,819 issued to Chang et al. (*Chang*). For at least the reasons set forth below, Applicants submit that claims 1-7, 12, 17 and 18 are not anticipated by *Chang*.

Claim 1, as amended, recites the following:

a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, wherein an emitter region is adjacent to a periphery of said fishbone configuration.

Chang discloses a self-aligned collector-up heterojunction bipolar transistor (HBT).

See col. 1, lines 46-46, col. 2, lines 15-16. The HBT includes three base contacts and two collector uprisers, where the base contacts and collector uprisers project out from one side of the base and collector, respectively. See Fig. 7, col. 5, lines 23-31. *Chang* does not disclose a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, wherein an emitter region is adjacent to a periphery of said fishbone configuration. Therefore, *Chang* fails to disclose at least one limitation of claim 1. Consequently, claim 1 is not anticipated by *Chang*. Applicants therefore respectfully request that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. § 102.

Claims 2-7, 12, 17 and 18 depend from claim 1. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 2-7, 12, 17 and 18 are not anticipated by *Chang* for at least the reasons set forth above. Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 2-7, 17, 12 and 18 under 35 U.S.C. § 102.

Rejections of Claims 1-6 based on *Li*

Claims 1-6 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Li* et al. U.S. Patent Application No. 2005/0023643 (*Li*). For at least the reasons set forth below, Applicants submit that claims 1-6 are not anticipated by *Li*.

Claim 1, as amended, recites the following:

a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, wherein an emitter region is adjacent to a periphery of said fishbone configuration.

Li discloses a bipolar junction transistor having a support post, a base layer and an emitter formed on the base. See para. 0018, lines 4-9. A base contact extends from the top of the support post to an edge of the base. See para. 0019, lines 3-7 and para. 0021, lines 1-5. The base contacts in *Li* are comb-shaped, having a top portion and teeth that extend perpendicularly from the top portion to contact the edge of the base. See Fig. 3a and para. 0026, lines 1-6. *Li* does not disclose a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, wherein an emitter region is adjacent to a periphery of said fishbone configuration. Therefore, *Li* fails to disclose at least one limitation of claim 1. Consequently, claim 1 is not anticipated by *Li*. Applicants therefore respectfully request that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. § 102.

Claims 2-6 depend from claim 1. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 2-6 are not anticipated by *Li* for at least the reasons set forth above. Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 2-6 under 35 U.S.C. § 102.

Claim Rejections - 35 U.S.C. § 103

Rejections of Claims 8-11 and 13-16 based on *Chang* and Case Law

Claims 8-11 and 13-16 were rejected under 35 U.S.C. § 103 as being unpatentable over *Chang* in view of Examiner's cited case law, which according to the Examiner states that "a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations." For at least the reasons set forth below, Applicants submit that claims 8-11 and 13-16 are not rendered obvious by *Chang* in view of Examiner's cited case law.

As explained above, *Cheng* does not disclose a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, wherein an emitter region is adjacent to a periphery of said fishbone configuration, as recited in claim 1. In addition, Examiner's cited case law is based on the premise that the prior art discloses the claimed apparatus, and *Chang* fails to disclose at least one limitation of claim 1. Therefore, *Chang* in view of Examiner's cited case law fails to disclose at least one limitation of claim 1. Consequently, claim 1 is not rendered obvious by *Chang* in view of Examiner's cited case law.

Claims 8-11 and 13-16 depend from claim 1. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 8-11 and 13-16 are not rendered obvious by *Chang* in view of Examiner's cited case law for at least the reasons set forth above. Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 8-11 and 13-16 under 35 U.S.C. § 103.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims 1-18 are in condition for allowance and such action is respectfully solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the application.

Respectfully submitted,

Dated: November 4, 2005



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